

ARMY AND NAVY CHRONICLE.

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CONGRESSIONAL DOCUMENTS.

COAST SURVEY.

Sixth Report of F. R. Hassler, as Superintendent of the Survey of the Coast of the United States, and the construction of Standards of Weights and Measures; rendering account of the works of 1837.

1. As soon as the arrangements made last spring for the compensation of all persons employed in the two works under my charge were completed, I immediately made the organizations of the works for the summer, and proposed such additional appointments as the state of the works required. A number of plane-table parties were organized and sent out, sufficient to fill up the intermediate parts, stated in my last report as necessary to be completed, and to extend them farther easterly and southerly, as much as the time and weather would allow. Thus nine parties were gradually put in activity, from the latter part of April, onwards; some of which acted at first jointly, until they were all equally provided with instruments; at the completion of which, the mechanics were engaged in the workshop established for that purpose in the office at Washington.

2. The two parties for secondary triangulations were occupied like last year: the one in New Jersey, towards the Delaware; the other over Long Island sound; in continuation of the plan, which I had originally formed, to accelerate the work, by this distribution of the parties to both sides; both in extension of their preceding work.

3. The two sounding parties were equally continued, upon the plan stated in my last report; the one in the neighborhood of New York, the other in Long Island sound.

4. For a long time, the season was so eminently contrary to the field operations, that the exertions of all these parties were not rewarded with the deserved success; and they uniformly stated, that it would be entirely impossible to attempt any thing for the primary triangulation.

5. During this period, I employed, therefore, my time to the finishing and adjusting of the system of ounce weights for the Mints, which I had the honor to present to the Treasury Department in the middle of June. Upon these works I present herewith a special paper rendering account of the new method which I have employed in their adjustment. Leaving Washington shortly after, I delivered two sets of these weights to the United States Mint in Philadelphia. In New York, I attended to a number of objects relating to the procuring of future necessary means for the construction of standards, and for the forming and new equipping, of the party for my own field-works; as I had allowed the plane-table parties to avail themselves of my former field equipment, in whatever might fit them, in order to establish themselves so much the quicker.

6. During the mechanical operations which this required, on the part of the persons in whose duty they lie, I took the first leave of absence, on private business, which I have taken since 1829, when my connexions with the Government began again, directing the camp of my next station to be formed during my absence; which was all properly done. But, though I was shortly after at the station, put the instrument in proper order for the work, and attempted to observe, it was not until the 1st of September, exactly, that the weather allowed actual observations; and from thence onward, it has proved very favorable, until now; when, for the plane table works, winter overtakes us. The temperature of the season is rather below what can be endured in

that kind of work, and these parties have broken up, one after the other, in proportion as their work admits of interruption.

7. The results of all these operations have been the following:

8. For the main triangulation, those stations have been occupied by me, which bind up the station points of the works of 1833 and 1834, and unite the secondary triangulation of the eastern side of Long Island and Rhode Island, on the east, and of the Jerseys, below the bay of New York, on the southwest, with proper extensions.

The new theodolite of 30 inches diameter, which was used for the measurement of these angles, has proved of great advantage for the accuracy by its stability; in which, I presume, it exceeds any instrument ever constructed for field-work, and its great optical power of telescope and microscope.

9. Heliotropes, of which I had begun the use last fall, have this year been used for most of the station-points, and for the base-points exclusively. I caused one to be constructed in our shop last winter, after two received the previous summer from Göttingen, by the kind assistance of Professor Gauss, the inventor of this instrument; and during my work this summer I received four more; all seven are now in activity. The aim of the instrument is: to reflect the sun's image from the station-point at which they are placed, to the observer on his station; thereby perpetuating, for any time required, or allowed by the sunshine, the reflection of the sun's rays, which is otherwise given by my tin signals, at that certain time, for which the angle of the cone is constructed, as I have heretofore explained.

10. These new instruments require a man of some intelligence to attend to them, and to replace them about every four minutes, according to the motion of the sun. The acceleration of the work, which they procure, compensates this additional expense manifold. They will show a precise luminous point, even through the haze, so frequent on our eastern sea-shore, when the outline of the hill itself, upon which they stand, cannot be traced. It is probable to me, that without them, almost no distant triangulation would be possible on the farther eastern shores, without a very great loss of time.

11. The secondary triangulation, east of this, has been continued, joining the parts reported upon heretofore, and extending farther to Block island, and over the shores of Rhode Island, and onwards, grounding upon the eastern side of the main triangulation made for its guide. In a similar manner, the secondary triangles south, in New Jersey, have been properly multiplied between the sea-shore and the Delaware, and extending southerly to the neighborhood of Philadelphia, grounding upon the lines of the main triangulation, laid out for that purpose, between Navesink and the neighborhood of Springfield mountain, which had already been a station-point of my triangulation in 1817.

12. By the plane-table works, all the topography which remained to be filled up between the parts of Jersey, on Navesink, Staten Island, &c., and the shore of the sound on the main land of New York, Long Island, and Connecticut, upon which I reported last year, has been entirely filled up. The proper points were furnished all along to guide the operations of the sounding parties. The part about New York has been extended up the North river, to about three miles above King's Bridge; whether it will be proper to extend it up, till it includes Tappan bay, as I thought at first, I shall nearer investigate this winter. Likewise, the interior of Long Island, be-

tween the two shore parts, has been filled up. Both parts of the shore of Long Island should have been further surveyed as far as Milford, in Connecticut, and to Drowned Meadows, on Long Island; the topographical parties furnishing the data to ground the sounding operation upon, as they went along, in the same manner as they had received their guide from the primary and secondary triangulations; they extended more or less in the interior of Connecticut, towards the points of the main triangulation, lying in the rear, as circumstances admitted.

13. In the course of the coming winter, I shall cause all these works, with some of the principal soundings, to be brought together, on a reduced scale, to a sketch map, like I have done in former years, which will show again the state of the whole work at this time; and, by its comparison with the similar sketches of the former years, the progress which the work has made in each year. As this can never be done until all the works have been collected in Washington, and reduced for that purpose, the sketches can never be presented with the yearly reports, similar to the present, as they fall in a time when all is yet in full activity otherwise. They can, besides that, in any case, be no more than a register of the work, as it progresses.

14. Already the above shows that the naval part has kept pace with the topographical parts, as they always work together, in assorted parties. The two hydrographic parties have worked up all the soundings between the shores quoted above, as surveyed by the topographical parties, from which they receive always the points upon which their determinations must be grounded, in proportion as they progress; for the water itself admits no fixed points, affording any security for the hydrographic works.

15. When I first directed Lieutenant Gedney to take up the soundings of the south side of Long Island, and the entrance of New York harbor, I directed his attention to two subjects of importance, then not yet ascertained, but which I had sufficient reason to suppose would be verified, namely: 1st. The existence of a westerly current along the south side of Long Island, and another coming, at certain times most likely only, from the Jersey shore of Long Branch, and that neighborhood, towards that part of Long Island where I measured the base-line; both dangerous to navigation, at very important points. 2ndly. The existence of a channel into the harbor of New York, north of the one habitually used; though I could form no accurate idea of its depth and stability.

16. The first of these suppositions has not yet been fully investigated, on account of the nature and extent of the works hitherto performed, as it will require different operations; but the second has succeeded even beyond my expectations, as has already become public since my last report, on account of its importance and great value, for the so highly important harbor of New York. Lieutenant Gedney found a channel that admits, even at low water, every size of merchant vessels. This channel has already been buoyed out for service in future; and the passing of the Ohio, seventy-four gun-ship, through it, is a fact of public notoriety.

17. That such a valuable discovery, which appeared to lie so near, was not made earlier, is to be attributed simply to the manner in which nautical surveys have generally been made. Without sufficient accurate fixed points on the shore, which the other works of the coast survey furnished, such a discovery was impossible; the most experienced and attentive seamen might have sailed about this channel ever so often, without being able to ascertain the fact; because the place of his vessel, at any time, presents him only an insulated point, disconnected with other parts, and even to a number of such points he is unable to assign a direction, sufficiently accurate to *aver* any such facts; such discoveries

can only be the result of a systematic work, grounded upon full mathematical principles, as are applied in our works.

18. Lieutenant Blake, commanding the hydrographical party in Long Island sound, has also made discoveries, which, for the same reason just stated, had remained unknown; he discovered ledges of rocks, hitherto unknown, very dangerous to the navigation, particularly in times of low tide; and the Long Island sound has presented in various places a widely different form under water from what it was supposed, though in other instances, his works have confirmed the former statements of the latest maps. It is very probable that the survey of the eastern part, which has far more accidental variations, will present more novelty; but whether in finding something new, or confirming old statements, these surveys have the essential, and above all other valuable, property of accuracy and certainty of statements, which is well known is not credited as the property of the maps now in use.

19. With reference to the appropriation which it is necessary to have disposable for the ensuing year, I have the honor to state, that the nature of the work, in its present situation, requires the continuance of the same number of parties of each kind as have been employed the present year, viz: nine topographical parties, two secondary triangulation, two sounding parties, and the establishment for the main triangulation.

20. In my report of 22d November, 1825, I have given some details of estimates of each such party, so that it may be unnecessary here to repeat details. What at that time was stated for the naval parts and instruments, may now be considered as about balancing the increased number of plane-table parties; though the present state of prices, the necessary bettering of the wages and compensations, and other similar circumstances, have increased their expenses.

It is much to be doubted whether the remaining balance of this year's appropriation will fully suffice for the equipment of the whole establishment next spring, and the expenses that must be incurred before the next appropriation will likely be disposable.

21. The total estimate for 1836, above quoted, amounted to \$87,300; circumstances had occasioned that a considerable balance of it remained for the use of this year, which, added to the last appropriation, made it possible this year to prosecute the work vigorously, as has been done. At least an equal sum will, therefore, be necessary for the next year, under the supposition that the session of Congress, after the next, will be short, and therefore the appropriation be made in March.

22. I take the liberty, upon these grounds, to suggest that you will please to propose an appropriation of \$90,000, to be made by Congress, with a view to prosecute the work upon the same scale, upon which I have made this year the experience: that it is most advantageous to prosecute it; I may even assert the most economical, proportionally to the result, that can be reached by it.

23. The work appears to gain so much interest and credit, that it must be expected the anxiety of the public to enjoy its results will increase; while, however, it is neither proper, nor possible, to attempt to satisfy it before such a mass of work will be done, as the aim of the greatest public advantage in it requires. With these views, I shall already this winter cause a considerable part of the work to be brought together, to enable me to combine, as early as admissible, plans for the future creditable publication under the proper authority of the Government.

F. R. HASSLER.

HARROW HILL, NEAR HEMPSEAD HARBOR,
ON LONG ISLAND, Nov. 18, 1837.

LIEUT. W. SCOTT KETCHUM.

March 23, 1838.—Read and laid upon the table.

Mr. E. WHITTLESEY, from the Committee of Claims, made the following report :

The Committee of Claims, to which was referred the petition of Lieutenant W. Scott Ketchum, report :

That the petitioner states he was, at the time of the theft hereinafter mentioned, assistant commissary of subsistence, and was at Camp Sabine ; and on the 8th of September, 1837, his trunk, in which he kept his own and the public money under lock and key at his quarters was stolen ; and that the public money, amounting to \$412 86½ was so taken. He asks relief.

In a letter, dated on the 9th of October, addressed to General Gibson, and received on the 12th of November, 1837, he states that his trunk had been stolen from his quarters, containing about seventeen hundred dollars, of which sum \$412 86½ was public money, appertaining to the subsistence department. Lieutenant Cady states he was present at an examination of the trunk of Lieutenant Ketchum, on the morning of the 9th of September, 1837, and says the lock was broken, apparently by violence. Lieutenant Ketchum informed him that he had for some time before kept a large sum of money, both public and private, in that trunk ; and that it had been stolen from him, the night before, from his quarters.

Captain Worth states he was present on the morning of the 9th of September, 1837, when a soldier brought the trunk in, and said he had found it in a ravine adjacent to the garrison ; that the lock was broken, evidently by violence ; and that, on an examination of the trunk, no money was found in it.

Samuel Richmond (or Samuel Richner) states, on or about the morning of the 9th September, 1837, he found the trunk in the woods near Camp Sabine, and it was broken open.

Lieutenant Ketchum himself states his trunk was stolen from his quarters between the 8th of September, and 9 o'clock, A. M., on the 9th of September, 1837, without his knowledge ; and that \$412 86½ pertaining to the subsistence department, was stolen therefrom, and has not been heard of. He further states that there is no place for the deposit of public funds at that place, other than under lock and key in his own quarters.

The statements mentioned are under oath.

In a report made by Alexander Hamilton on the 9th of December, 1791, in a case referred to him for that purpose, he says, " It is a principle which has been admitted in practice at the Treasury, upon the strength of legal opinions officially given, that where a receiver of public money, as a mere agent, is robbed of such money, which may have been in his keeping, the loss is to be borne by the Government ; but, from the great danger of abuse to which a principle of this nature is liable, it is conceived to be essential to the public safety that the utmost strictness and exactness should be observed in the manner of proceeding. Several circumstances appear necessary to be insisted upon : due caution and care on the part of the agent ; full, precise, and unexceptionable proof of the theft, and immediate notice of it to the proper superior or department."

This committee concur in the principle here laid down, and in the necessity of strictly adhering to the rules stated, in order to guard against fraud.

In this case, the theft itself is not satisfactorily proven ; nor is there any testimony that any care and caution was used.

The following resolution is submitted :

Resolved, That the petitioner is not entitled to relief.

DOMESTIC MISCELLANY.

From the Pennsylvanian.
GREAT MEETING

OF THE CITIZENS OF THE CITY AND COUNTY OF PHILADELPHIA, IN FAVOR OF A DRY DOCK.

At a very numerous meeting of the citizens of the city and county of Philadelphia, convened in Independence square, on Thursday afternoon, the 5th of April, to express their sentiments in favor of a Dry Dock, at our naval station, General ANDREW M. PREVOST was called upon to preside. Col. John Thompson and William F. Hughes, of the 1st district ; Frederick Stoeve and Cornelius Tiers, of the 2d district ; George App and Samuel Weyant, of the 3d district, were appointed Vice Presidents ; and Thomas M. Rush, George Norton and Z. B. Zeigler, Secretaries.

The call for the meeting having been read, it was opened by Col. John Thompson, in his usual forcible and happy manner. He was followed by Col. James Page, in an address which was listened to with marked attention by the people assembled, clearly demonstrating the necessity of the object required, with eloquence and force, and concluded by reading the resolutions presented, which were unanimously adopted.

Dr. Joel B. Sutherland, having been called upon, also addressed the meeting in an animated manner, in support of the measure, fully impressing all present of the necessity of prompt action, in order to effect so great and important an object.

Whereas, at a town meeting, held on the 24th day of July, 1837, the citizens of Philadelphia called the attention of the General Government to the state of the navy yard at this station, and urged the propriety of its completion according to the original plan, and the erection of a Dry Dock therein ; and whereas the subject has been recently submitted to Congress, and is now under consideration by the Naval Committee, and it is expedient that the constituted authorities be put in possession of the information necessary to a correct decision of the question ; therefore, be it

Resolved, That the citizens of Philadelphia cannot discover that any thing has been done by the Government towards the permanency and efficiency of our naval establishment, for a period of more than thirty years since its projection, commensurate with the lapse of time, the means of the nation, the wants of the navy, the just expectation of the community, or the rights of the State. The Delaware is without fortifications, the city destitute of the means of defence, and its commerce exposed to the depredations of robbers and the assaults of the meanest piratical rovers.

Resolved, That the State of Pennsylvania, which contributed so much in blood and money in the achievement of our independence, and in the subsequent preservation of our national honor, takes a decided interest in any measure which is calculated to increase the strength and retain the glory which our gallant little navy has earned for itself ; and that one of the first and most commendable steps to be pursued for that purpose, is to establish good ship yards and havens, at suitable points along our extended line of sea coast, to which single ships or fleets can retire, if necessary, for the purpose of repairs or safety.

Resolved, That we regard with pride and pleasure the high character which our naval architecture bears throughout the world ; and pointing to the noble specimens now floating, of the science and skill of the mechanics and builders of Philadelphia, we ask where can finer models be found than are presented by the sloop Vandalia, ship Relief, frigates United States, Philadelphia, Guerriere and Raritan, and the ships of the line, Franklin, North Carolina, and Pennsylvania ? These specimens of our handy work are not surpassed in their quality, finish or speed, by any built elsewhere ; while many set afloat at other stations have fallen short of them, and not a few proved total failures.

Resolved, That while our constructors and builders have produced some of the finest vessels afloat, and have proved themselves in every respect equal to any task which might be imposed on them, it is a lamentable fact, that but one ship of war, the Constellation, has

been permitted to resort to this haven for repairs and supplies, and this so long back as 1801, a period of thirty-eight years. When our beautiful models once leave us, they are gone forever, as if to punish our workmen for the superior skill displayed in their construction.

Resolved, That in the opinion of this meeting, corroborated by that of men of science, practically conversant with the subject, the city of Philadelphia, as a naval station, possesses superior advantages from its security, depth of water over the bar near Fort Mifflin, the skill of its mechanics, the abundance and perfection of its material, the salubrity of its climate, and profusion of its markets, the variety and extent of its commerce, and its proximity to the States of New Jersey and Delaware; thus offering a market for many of their productions, particularly their provisions, iron, and timber.

Resolved, That the said navy yard is now, and for many years past has been permitted to remain in an imperfect and unfinished state. Nothing in the way of improvement has been done, if we except the building of two sheds, one for masts, and the other for timber; and there are not at this time quarters in the yard for the accommodation of the officers attached thereto, whose duty it is to take charge of and preserve the public property therein: for this reason the yard is not and never has been under their continued control. The officers are obliged to find their own quarters outside, and so escape responsibility. This discreditable state of things does not exist at other stations—the quarters being sufficiently large for general accommodation.

Resolved, That a dry dock is essentially necessary at this station; indeed no navy yard can be considered complete without such an improvement. This position is strongly exemplified by the necessity which was supposed to exist at the launching of the great ship of the line Pennsylvania, without having her bottom coppered, and sending her round to Norfolk for that purpose, at some hazard and considerable expense, and is still further shown by the fact, that the said ship has not yet been docked there; in consequence of the demand for the use of the dock by other vessels, so that if it had been the season for the running of the worm common to salt water stations, her timber would have been exposed to their attacks, and partially, if not entirely, destroyed.

Resolved, That the port of Philadelphia presents peculiar advantages for the location of a dry dock, such, it is believed, as cannot be found at any other station. The Schuylkill water can be used for filling it at a very moderate expense, and great saving may be anticipated from it in many other respects. Justice to the State, (it having ceded the jurisdiction over the soil embraced by the navy yard and exempted it from taxation,) utility, economy, convenience, and necessity, seem to demand the completion of the said yard, and the construction of the dock, and we trust that the work will no longer be neglected by the proper authorities.

Resolved, That in thus expressing our opinions, and facts connected with a subject in which we feel a powerful interest, we do not wish to be regarded as asking for ourselves any patronage from, or improvement by the General Government, beyond the fair proportion or just participation to which we are entitled, looking to the patriotism of the Key-stone, the means and facilities which its metropolis possesses, and will justify, the rank she holds, and the care which should be taken to foster, encourage and employ the industrious laborer, mechanic and artisan. Nor do we, while we hold up to the view of Congress the advantages of our naval station, intend to disparage the claims of any other; but on the contrary, we would be glad to see provision made for the improvement of each, to the full extent required by their claims, the wants of the navy and the interest of the nation.

Resolved, That this meeting intends to cast no censure on the present or past administrations, as we are well aware of the difficulties heretofore existing, and which retarded a better condition of the Union. These difficulties, in the shape of foreign or domestic wars, cancelling the national debt, and providing for the protection of other and more directly exposed points, have mainly disappeared, and the opportunity is now presented for affording adequate safe-guards to our great and flourishing city, and the agriculture, commerce, and manufactures of our extensive and noble commonwealth.

Resolved, That we cannot doubt the representatives of the nation will bear in mind, that to preserve peace, we

should be prepared for war, and that the period of peace is the time to prepare for war; these are the admonitions of wisdom and humanity; they are the maxims of him who was "first in the hearts of his countrymen," and cannot be disregarded by a nation whose "virtue, liberty, and independence," consecrated by revolutionary blood, must be transmitted pure and unsullied to ages yet to come.

Resolved, That a copy of these resolutions be forwarded to the President of the United States, the Secretary of the Navy, and also to each one of the Senators and Representatives in Congress from Pennsylvania, with a request to the latter that they will make every honorable exertion to have an appropriation made for the building of a dry dock at the Philadelphia Navy yard.

Resolved, That a committee of five persons be appointed for the purpose of carrying into effect the foregoing resolutions.

The President, under the above resolution, appointed the following committee of five citizens: Colonel John Thompson, Col. James Page, W. H. Knowles, Cornelius Tiers, A. M. Prevost.

Resolved, That the proceedings be published in all the papers.

ANDREW M. PREVOST, *Chairman*.

JOHN THOMPSON,
WM. F. HUGHES,
FREDERICK STOEVEY,
CORNELIUS TIERS,
GEORGE APP,
SAMUEL WEYANT,

Vice Presidents.

THOMAS M. RUSH,
GEORGE NORTON,
Z. B. ZEIGLER,

Secretaries.

From the Buffalo Commercial Advertiser.

GREAT MEETING AT DETROIT.

An adjourned meeting of the citizens of Detroit, in relation to alleged Canadian aggressions, was held at the City Hall on the 12th March. An immense assemblage attended, composed of the most intelligent, respectable, and patriotic citizens of Detroit. The officers of the meeting were, E. P. Hastings, President, A. S. Porter and Theodore Romeyn, Vice Presidents, Charles Peltier, and Anthony Ten Eyck, Secretaries.

A committee, appointed at a previous meeting on the 7th, to collect information, in reference to the insults and outrages alleged to have been committed by the British authorities on the rights of American citizens, reported that they appointed a sub-committee of five to visit Sandwich and Malden, and to ascertain the truth of these allegations and rumors, the report of which sub-committee was laid before the meeting.

The gentlemen composing the sub-committee were, D. E. Harbaugh, C. C. Trowbridge, A. D. Frazer, E. Brooks, and Peter J. Desnoyers.

They stated that on the 9th the committee crossed the river opposite Detroit, and satisfied themselves that no batteries or fortifications had been in progress, or even commenced, as had been reported.

The committee proceeded to Sandwich, and there met with a considerable number of magistrates of that vicinity, by whom they were received with the utmost kindness and courtesy. Mutual explanations ensued, as to circumstances which had occurred on both sides, to which importance had been given by excited misrepresentations. Every facility in the power of the magistrates was freely offered, in order that they might obtain all the information they desired. They accompanied the committee to the jail, and the different rooms were shown to and examined by the committee.

The committee found no American citizen in prison, having, at the request of the magistrates, interrogated each prisoner as to his place of residence and citizenship. The jail, the different rooms and apartments, were clean, warm, and well lighted, and their entire appearance presented an air of comfort and cleanliness, seldom seen in buildings erected for a similar purpose. The committee state that they are satisfied that the treatment of prisoners has been, and

is now, characterized by mildness, humanity, and benevolence.

The committee then proceeded to Malden and were received by the military in command at that post, with the same courtesy manifested by the civil authorities.

The committee had permission to see and converse freely with the prisoners that were taken in the engagement at Point au Pelté Island. None of the prisoners are citizens of Michigan. Those that were not wounded are confined on board of a schooner lying at the wharf at Malden. They expressed themselves perfectly satisfied with the treatment they had received, and one of them remarked that it was much better than they expected or deserved. The wounded prisoners taken in the same engagement, were in a warm and comfortable room, and to all appearance, were provided for. Their wounds were regularly dressed twice a day, under the direction of the surgeon. All the prisoners have the benefits of religious advice and instruction. These prisoners also expressed themselves entirely satisfied with the treatment they had received.

Two members of the committee, in company with three or four of the most respectable citizens of Malden, went down upon the ice, to the place where Sutherland and Spencer were taken prisoners. From the examination made, and from the relative position of different points upon each shore, the members of the committee who made the examination are satisfied that Sutherland and Spencer were captured and taken in British waters, and consequently within the jurisdiction of the Canadian Government.

Appropriate resolutions, asserting a firm determination to maintain inviolate the treaties and laws of the United States, and to preserve our neutral and friendly relations with Great Britain, were unanimously adopted. Also others, protesting against the official questioning, by the Canadian Parliament, of the sincerity of the efforts made on the Michigan frontier, for the maintenance of peace and good order.

Our neighbors of Detroit have nobly done their duty in this matter. They have taken the right course to elicit the truth, and set the country right in regard to the exaggerated stories which have been promulgated all over the Union, charging upon the Canadian authorities the most barbarous and wanton treatment of prisoners, and with lawlessly arresting and imprisoning American citizens.

From the St. Louis Mo. Republican.

MISSOURI VOLUNTEERS.

By the steamer George Collier, came passengers, Captains CURD and RUSSELL, in company with a portion of their respective commands. These, and also the company under the command of Capt. Jackson, remained about a month after the volunteers which arrived at Jefferson Barracks, in the United States, left the service.

It cannot fail, after what has been said concerning the standing of the Missouri Volunteers, with their commanding officer, Col. Taylor, to be gratifying to their friends, to see the terms upon which they separated, and the high testimony which Col. Taylor bears to the character of our fellow citizens, as gentlemen and as soldiers. We have been politely favored with the following correspondence, which passed at the time of their being discharged from the service. The order for their discharge, it will be remembered, bears date the 7th of February, and the correspondence the eighth, but the letter of the officers to Col. Taylor was written before the order had been received, and whilst they were totally ignorant of the terms in which it was couched. These gentlemen have the high satisfaction of knowing, that they return to the bosom of anxious friends and acquaintances with a name untarnished and the reputation which every soldier should be proud of.

The following is the order for their discharge:

[See A. & N. Chronicle, March 22, 1838, p. 189.]

The following is the correspondence between the officers and Colonel Taylor:

FORT BASINGER, Feb. 8th, 1838.

COL. Z. TAYLOR,

Dear Sir: It being understood that the services of the Missouri Volunteers are not required longer in Florida, and that it is your intention forthwith to discharge them, those of us whose names are hereunto written, cannot think of taking our leave without leaving behind us an humble testimonial of the high regard we entertain for yourself and the other officers of your corps, with whom we have co-operated; and the deep obligations we are under for the many and continued acts of kindness that we have received at your hands. Whilst we have looked on your military operations with feelings of decided approbation, which all must feel that are acquainted with the celerity and energy of your movements, we are enabled to subjoin with great pleasure that that courtesy and amenity of manners, for which gentlemen of the profession of arms have always been eminently distinguished, has not for one moment been lost sight of, and so broad has been its sphere, that the Missourians have come in for a full share. We cannot close this communication without offering this slight proof of our entire satisfaction with the deportment of our immediate commanding officers, Major Bennet Riley and Major Graham, with whom we have co-operated. In both of those gentlemen we believe we espy qualities that must elevate them to the topmost round of their profession, if opportunities should ever be presented them, and certain we are that in them both we have found virtuous and ennobling properties, that have captured our hearts and imposed obligations upon us, that no exertions of ours can ever cancel. We part with them with those kind feelings that we have felt when we have taken leave of our nearest and dearest relatives.

In bidding the army south of the Withlacoochee in Florida, an adieu, suffer us through you to say to Col. Davenport, Col. Foster, Majors Wilson, Loomis, and Noel, and, indeed, to all the officers of the army, that never will we forget our agreeable associations with them, nor the profound obligations we are under to almost every one of them, for some notable favor or kindness, and that in no instance have we a right to murmur.

We beg you to be assured, that for yourself individually, we cherish the liveliest feelings of respect and gratitude, and are mortified that at present, we can make no other return than to asseverate that we are sincerely grateful, and will associate ever the name of Colonel Taylor with all pleasing reminiscences of Florida. Very truly,

Your ob't servants,

H. H. HUGHES, *Major Missouri Volunteers.*

WM. HENRY RUSSELL, *Capt. 7th Co. Mo. Vol.*

CONGROVE JACKSON, *Capt. 1st Mo. Vol.*

J. H. CURD, *Capt. 9th Co. 1st Reg. Mo. Vol.*

P. M. JACKSON, *Lieut. 1st Co. Mo. Vol.*

JNO. M. WARD, *Lieut. 7th Co. Mo. Vol.*

JNO. C. BLAKEY, *1st Lieut. 9th Co., 1st Reg't Mo. Vol.*

WM. H. WINLOCK, *2d Lieut. 9th Co., 1st Reg't Mo. Vol.*

HEAD QUARTERS, 1ST BRIGADE,
ARMY SOUTH OF THE WITHLACOOCHEE.

Fort Basinger, Feb. 8, 1838.

GENTLEMEN: I have the honor to acknowledge the receipt, this moment, of your too flattering communication of this date, which is more gratifying to me than any thing of the kind could be, in relation to my conduct referred to, as it comes unexpected from those who have so largely participated in the difficulties and dangers I have had to contend with.

Let me assure you, gentlemen, that no one could

appreciate more highly than myself your approbation of my conduct; and although I may have erred in many instances in the management of the campaign entrusted to me, yet I can truly say, that I have acted for the best, and that my sole object has been to bring the war in which we are engaged, to a speedy and honorable termination.

I can sincerely say there is no one who more highly appreciates the sacrifices you have made in leaving your families and homes to carry on operations against an active enemy in the swamps and hammocks of Florida, in addition to its deleterious climate, as well as the dangers, privations and difficulties you have so cheerfully encountered on all occasions, and which I flatter myself will be duly appreciated by your country, which I need not say, will be the case by all who have witnessed the same.

Accept, gentlemen, for yourselves collectively and individually, as well as for the officers and soldiers with whom we are now associated, my most grateful acknowledgments of this testimonial of your good opinion, which will long be recollected by me with more pleasure than any thing of the kind I have ever received in connection with my public duties.

Be pleased also, to accept through me, the acknowledgments of Majors Riley and Graham, as well as the officers of the regular army, with whom you have been associated, for the handsome manner you have been pleased to speak of them in your communication to me.

Wishing you a safe and speedy return to your homes, and a happy meeting with your families, connections, and friends, I am, gentlemen, most respectfully, your obedient servant,

Z. TAYLOR, Col. 1st Reg. U. S. Inf.

To Major H. H. Hughes; Capt's. Wm. H. Russell, C. Jackson and J. H. Curd; Lieuts. J. M. Jackson, J. M. Ward, J. H. Blakey and W. H. Winlock, of the 1st Reg't. Missouri Volunteers.

FLORIDA WAR.

We take from the Missouri Argus the following correspondence between officers of the Missouri Volunteers and Major BRANT, of the United States Quartermaster's Department. The correspondence is honorable to both parties, and the more so as it is spontaneous, and exhibits a fine specimen of that harmony between a regular officer and volunteers, which it is so desirable to cultivate. The testimony of Major Brant, that the volunteers had "*faithfully discharged their duties in Florida*," is high praise, coming from an officer who served with distinction on the Canada lines during the late war with Great Britain.—*Globe*.

CORRESPONDENCE.

TAMPA BAY, Feb. 16, 1838.

Major J. B. BRANT: SIR: We, the remaining volunteers from Missouri, brought into the field by our late lamented commander, Colonel Gentry, and the spies, by Colonel Morgan, cannot think of taking our departure from Florida, which we are about to do, without leaving behind us some testimonial of our profound gratitude to you for the many and repeated evidences you have furnished us of your disposition to administer to all of our comforts, and to all else consistent with your professional duty to serve and befriend us. In the midst of as much business as can devolve upon any individual, and which you have despatched in a manner highly satisfactory to all, and, to our utter surprise, you have always been prompt to relieve our many wants, and to make such suggestions as volunteers so much need, and which have contributed to facilitate our services, and render comparatively easy our duties, in the arduous campaign that we have made, and which is now about to terminate. We thank you most sincerely, for the many proofs of the kindness that we have received at your hands, and only regret that it

is not in our power to furnish you some more decided mark of our esteem than a mere profession of words.

We are, most respectfully,

Your obedient servants,

A. G. MORGAN, *of the Spies*,

H. H. HUGHES, *Maj. Mo. Volunteers*,

JOHN SCENCE, *Com. Morgan's Spies*,

WILLIAM WOLF, *Lieutenant do.*

J. HORNBECK, *Lieutenant*,

CONGRAVE JACKSON, *1st Com. 1st bt. Mo. V.*

P. M. JACKSON, *1st Lt. 1st bt.*

J. H. CURD, *Capt. 9th Comp.*

J. C. BLAKEY, *1st Lt. do.*

WM. H. WINLOCK, *2d do.*

WM. HENRY RUSSELL, *Capt. 7th Comp. do.*

JOHN M. WARD, *2d Lt. 7th Comp. do.*

HENRY D. EVANS.

QUARTERMASTER'S OFFICE,

FORT BROOKE, Feb. 17, 1838.

GENTLEMEN: I have had the pleasure to receive your highly esteemed favor of yesterday's date, in which you have been pleased to speak in such kindly terms of my deportment towards you since your arrival in Florida. Coming, as this did, from the members of the Regiment of Volunteers and Spy company, raised in the State in which it has been my privilege to have resided for the last fourteen years, I confess it has been to my feelings exceedingly grateful, and shall be treasured with gratitude. With many of you I have enjoyed a personal acquaintance, and it gives me sincere pleasure to find that my humble efforts to add to your comfort, so far as it could be done consistently with official duty, have met your approbation. Being now on the point of returning to your homes, after a campaign of much danger and hardship, I beg leave to tender you my warm wishes for a safe and expeditious journey, and that you may live long in the bosoms of your families and friends, *to enjoy the pleasing reflection of having faithfully discharged your duties to your country during your stay in Florida.*

With high respect, gentlemen,

I have the honor to be,

Your obedient servant,

J. B. BRANT.

To Major A. G. Morgan, Maj. J. Scence, Capt. W. H. Russell, Capt. J. H. Curd, Capt. C. Jackson, and members of their respective companies of Missouri Volunteers.

GENERAL WOOL.

From the Plattsburgh Republican.

MR. STONE: It is very much to be regretted that sympathy for the Canadians should so far becloud the minds of many of our citizens, as not only to deny Gen. Wool that justice which is his due, but to abuse him for the performance of those arduous duties which his station devolve upon him. His position is entirely different from that of a mere citizen; from one, certainly, who is willing to throw off all responsibility and allegiance to his own Government. As an officer of the United States army, acting under the commands of the highest authority, his duties must be performed with promptness and sincerity. These he has done, and is honestly entitled to the thanks of his country, to the people of this country, but more particularly, to the lasting gratitude of the inhabitants of the northern towns.

Gen. Wool, by his sleepless vigilance, discovered the preparations and movements for the invasion of Canada; although many were lulled to security, yet he did not mistake the "signs of the times;" his call upon the militia, just in the "nick of time," has saved a border warfare, as useless to the Patriots as it would have been sanguinary and disastrous. Many worthy citizens, in their zeal, that the republican institutions of our favored country should be enjoyed

by our neighbors, seemed to overlook our position and obligations as neutrals. Many would readily involve our country in war, desolation, and ruin, in a hopeless crusade against the empire of Great Britain. But this number, comparatively, is small, and it is hoped and believed, that after a little reflection, that portion of our fellow citizens will award that commendation justly due to those who have borne the "heat and burden of the day."

Gen. Wool and others, it seems, by communications in the last Whig, are now *threatened* with prosecutions for alleged violations of law. If any one has broken the laws of the land, by illegally seizing persons or property, or by arming and marching into a neutral territory, and then "marching back again," or who shall have drawn a pistol upon an innocent sentinel; or presented two or three deadly weapons to the breast of a confiding captain of a guard; or, in short, whoever shall have measured *their* obedience to the laws, by their own reckless violence, let them be brought up and answer for it. Happily we have a Government of laws, and those that seek its sanctuary, must yield to its behests. NORTHERLY.

CHAZY, March 6, 1838.

From the New York Express.

SIR FRANCIS B. HEAD.—The conduct of this High Functionary of the British Government on this side of the Atlantic, has been of a very provoking and abusive character;—and in his zeal to avenge himself of the Ministry who have called him home, he has not cared what excitement he may have created, in his zeal, apparently to do all he could for the purpose of involving two friendly nations in a sanguinary war. The London papers have very properly censured him for intermeddling with the *forms* of our Government, and for pronouncing comparative opinions upon the merit of a Republic and a Monarchy in his *official* character in Upper Canada.

In the Toronto Patriot of the 23d March, is a copy of a long despatch from Sir Francis to Mr. Fox, in which he is not only illiberal in his remarks upon the course of the Governors of New York and Michigan, and in his defence of the Schlosser outrage, but abusive of Mr. Forsyth and Gen. Scott. Near the close he pays some compliments to Colonel Worth, at the expense of General Scott. Colonel Worth, an excellent and gallant officer, in the following note, declines the praise thus tendered.

From the Evening Post.

The Toronto Patriot of the 23d instant publishes a letter from his Excellency the late Lieut. Governor of Upper Canada, to the Minister of the British government, at Washington, in which the *actions* of Major General Scott, during his personal superintendence of the military operation on the frontier, recently made in aid of the civil authorities, and in support of the laws, are severely criticised, and the *motives* of that distinguished officer called in question.

In the same remarkable paper, his Excellency is pleased to contrast and commend the acts of another officer in connexion with the service, who, of all men in this country, must derive the most pain from so unjust and unnatural a position.

Having this moment, and for the first time, seen the letter of his Excellency, that officer, while he volunteers no defence of conduct, on the part of his distinguished commander, which is so far from needing one, deems it due to truth, to justice and to his personal honor, to say, that what his Excellency has been pleased to visit with his commendation, was the mere and literal performance, by a subaltern, of the precise orders of his chief, Major General Scott.

ASTOR HOUSE, New York, }
29th March, 1838. }

There resides in Front street a gentleman, who, in Castle Garden, fired a ball from a rifle, at sixty yard distance, into the centre, and in a successive shot, another ball on to the other, so as to fasten them together. The same at the Thatched Cottage, Jersey City, made a trifling wager of 16 to 1, that he would, with a duelling pistol, shoot into the size of a dollar at 15 yards distance. He hit the exact centre, drove the nail, and had a six-penny piece been placed on the centre, and its edge traced with a penknife, the centre could not have been cut out more perfectly. He has also hit a visiting card 13 times in 15 shots at 10 paces. He has killed at sea 12 stormy petrels in 14 shots; the size of the body of this bird is so small that it is supposed by many that it is impossible to hit it. The sailors are very superstitious regarding this bird, and many viewed their destruction with fear.—*New York Gazette.*

SELECTED POETRY.

From the Knickerbocker.

THE SEA.

EMBLEM of Everlasting Power—I come
Into thy presence!—as an awe-struck child
Before its teacher. Spread thy boundless page,
And I will ponder o'er its characters,
As erst the glad disciple sought the lore
Of Socrates or Plato. Yon old rock
Hath heard thy voice for ages, and grown gray
Beneath thy smittings—and thy wrathful tide
Even now is thundering 'neath its cavern'd base.
Methinks it trembleth at thy stern rebuke:
Is it not so?

Speak mildly, mighty Sea!

I would not know the terrors of thine ire—
That vex the gasping mariner—and bid
The wrecking argosy to leave no trace,
Or bubble, where it perish'd. Man's weak voice,
Tho' wildly lifted in its proudest strength,
With all its compass—all its volum'd sound,
Is mockery to thee.

Earth speaks of man—

Her level'd mountains and her cultur'd vales,
Town, tower, and temple, and triumphal arch,
All speak of him, and moulder while they speak.
—But of whose architecture and design,
Speak thine eternal fountains, when they rise
To combat with the cloud, and when they fall?—
Of whose strong culture tell thy sunless plains,
And groves and gardens, which no mortal eye
Hath seen and lived?—

What chisel'd skill hath wrought

Those choral monuments, and tombs of pearl,
Where sleeps the sea-boy, 'mid a pomp that earth
Ne'er show'd her buried kings?—

Whose science stretch'd

The simplest line to curb thy monstrous tide,
And, graving "*Hitherto*" upon the sand,
Bade thy mad surge respect it? From whose loom
Came forth thy drapery, that ne'er waxeth old,
Nor blancheth 'neath stern Winter's direst frost?—
—Who hath thy keys, thou Deep?—Who taketh

note

Of all thy wealth?—Who numbereth the host
That find their rest with thee?—What eye doth scan
Thy secret annals, from creation lock'd
Close in those dark, unfathomable cells,
Which he who visiteth hath ne'er return'd,
Among the living?—

Still but one reply?

Do all thine echoing depths, and crested waves
Make the same answer?—of that *One Dread Name*,
Which he, who deepest plants within his soul,
Is wisest, though the world doth call him fool.
—Therefore, I come a listener to thy lore,
And bow me at thy side, and lave my brow
With thy cool billow—if perchance my soul,
That fleeting wanderer on the shore of time,
May, by thy voice instructed,—learn of God!

L. H. S.

WASHINGTON CITY :
THURSDAY, APRIL 19, 1838.

STEAM FRIGATE FULTON.—The Fredericksburg Arena copies the communication of our correspondent H. S. from the Chronicle of the 5th inst. in relation to this vessel, and adds the following remarks, which we transfer to our columns as requested in the closing paragraph. We shall leave the further discussion of the subject to our correspondent, if he thinks proper to pursue it, or to any other who chooses to take it up. We will merely add that our object is likewise to elicit the truth, but at the same time not to condemn without sufficient grounds.

"That the Steam frigate was intended merely for harbor defence, is a new idea. Admitting it to be correct, the failure is not the less signal. A floating battery, capable of carrying a hundred guns of the largest calibre, and possessed of all reasonable speed, might have been built for the sum which the Fulton has cost. As a mere floating battery, the 'six 68 pounder cannon,' are truly ridiculous.

"But it is not true, that the Fulton was built merely for harbor defence. We refer to the act authorizing her construction. We refer to the vessel herself. She has scarcely a property that would be desirable in a mere floating battery. She is rigged too, which would be unnecessary, if she were never to leave the harbor. It is only a few months since the Chronicle announced that she was destined for the West India squadron; and such was the intention of the Department. Would a floating battery have been ordered on a cruise? If she were built for the harbor merely, why were fears recently expressed that she would not be able to carry a sufficient quantity of fuel? Our assertion, that the Steam frigate is a miserable failure, is sustained by the facts of the case, and the admissions of H. S. Built for the navigation of the ocean, no officer would venture to carry her to Norfolk, unless assured of a dead calm all the voyage. H. S. admits that a 'steam vessel, to navigate the ocean, ough to be constructed of different dimensions from the Fulton, particularly in her depth.' This is exactly what all intelligent and disinterested officers say, and the admission settles the question, provided we are correct in the other assertion, viz: that she was built for general service, which we now reiterate.

"As our object is to elicit the truth, will the Chronicle copy these remarks?"

Extract of a letter from an officer of the army, to his to his friend in Washington, dated

BLACK CREEK, E. F., April 4, 1838.

"I have, this moment, received letters from Fort Jupiter, dated the 26th ult. The Indians, in violation of their pledge, were preparing to fly to the swamps, when the Commanding General directed Colonel Twiggs to secure them. The Colonel so arranged matters as to "grab" every individual, on the morning of the 21st March. The party consisted of upwards of 500, men, women, and children; among them over 150 warriors and rifles. In addition to the above, the General took 159 negroes, over forty of whom are capable of bearing arms. Thus you observe that Gen. Jesup's operations about Fort Jupiter have resulted in silencing about 200 rifles.

"Of the above party, 370 have been shipped to Key Biscayno. The remainder have been sent to Tampa Bay. Gen. JESUP was busily engaged dis-

posing of his prisoners, anxious to push south in order to join Col. Bankhead, who is in full pursuit of Sam Jones and party, from whom he was not far distant when I last heard."

Correspondence of the Army and Navy Chronicle.

LISBON, March 4, 1838.

The U. S. frigate United States is now here; her officers and crew are well. The following is a list of her officers:

Captain Jesse Wilkinson. Lieutenants Z. F. Johnson, Alexander G. Gordon, Hillary H. Rhodes,* Charles H. McBlair, John A. Davis, Charles Heywood. Acting Master Bushrod W. Hunter. Surgeon G. R. B. Horner. Purser Dudley Walker. Chaplain Thomas R. Lambert. Lieutenant of Marines Benjamin E. Brooke. Passed Midshipmen James W. Cooke, Joshua Humphreys, Francis E. Barry, Charles Thomas. Midshipmen Albert S. Whittier, Charles S. McDonough, George H. Preble, Hamilton F. Porter, Howard Tillotson, Joshua D. Todd. Captain's Clerk — Robinson. Boatswain William Hart. Gunner Samuel Allen. Carpenter Richard Thomas. Sail Maker John C. O'Conner.

* We understand that Lieut. Rhodes has returned home, having arrived in a vessel bound to some port in the Chesapeake, and taken passage on board the steamboat from Norfolk to Alexandria.—*Ed. A. & N. C.*

The report of the Committee of Claims, H. R., in the case of Lieut. W. SCOTT KETCHUM, of the 6th Infantry, is inserted in this day's paper, because it involves (and may be considered as settling) a principle important to all officers who have charge of public funds.

A writer in the Norfolk Beacon recommends the union of the two offices of chaplain and professor of mathematics in the navy.

Commander JOHN PERCIVAL has been appointed to the command of the new U. S. corvette Cyane, now preparing for sea at Boston.

ARRIVAL AT WASHINGTON.

April 16—Capt. J. A. Phillips, 7th Infantry, Fuller's.

COMMUNICATIONS.

NAVAL ARCHITECTURE.

While upon this subject, it would not be misplaced to inquire something about the situation of the *Constructor*, as it is called, in our service; as the duties and responsibilities should show what we are to expect from these officers, and may afford a pretty fair test as to whether the country or the officers of the navy have any right to look to them for good ships. If any errors have crept into the view here taken of this matter, those who are better informed will correct them, which will still tend to throw light on the question.

In this important department of the public service (or at least which by other nations is so considered) there is no line of duty whatever laid down, which seems the more singular, considering the magnitude of the object, the quantity and value of the materials upon which the *Constructor* is presumed to be engaged. When it is considered that a country having

a navy of *bad ships* is in as bad or worse condition than with a navy *without ships*, it might have been supposed that the greatest care would have been taken to give precision and uniformity to the duties of the *Constructor*. As the spring is, so are the streams which proceed from it. At each navy yard, the commander's changing views and feelings are the only rule; and by the regulations of the navy, the commander of a yard is as independent as the commander of an individual ship. If any officer below the commander, with his concurrence, is disposed to be active, or become the *executive*, the Naval Constructor, as he is styled, is relieved from nearly all his charge of the men; he may become the assistant, but it is more by sufferance than from the consideration that he best understands his own profession. He is, to speak plainly, but little more than a superior kind of workman, and respect and deference are paid more to his personal character than as belonging to his station. From the general understanding of the regulations of the navy, it is the duty of these officers to superintend the work, it being apparently considered a part of their profession; and it is but just to add, as the writer has been informed, that many who endeavor to perform it, do so in a very gentlemanly manner.

At no very remote day, under the present organization, any working ship carpenter will answer the purpose of the navy. The navy yards are daily becoming more military, and it may be difficult to find men who are qualified, that will accept the situation of *Constructor* upon such terms; or, if so, they may soon find reason to retire. A distinguished captain in the navy has been heard to say, "that a great deal too much importance is attached to the office of *Constructor*; a good carpenter, with a captain of the navy to direct him, was all that was required." It is not supposed or imagined that these are the views of the Navy Department; and it would be injustice to those in authority to suppose that they were not fully provided, in case of need, with persons competent to perform all the duties required of them; for, in the course of nature, there will be vacancies to fill.

What motive has a naval architect to qualify himself, or rather what motive can he have to show his qualifications? If he should remain in the service, even through years of mortification, he can only look forward in his old age, to be dismissed, to give place to some younger man. In all other maritime countries in the world, this is not so. It is there considered that the man who has spent all his life in building their ships, has some claim to the care of his Government, when incapacitated by old age or disabled by accident. The Government is not ungenerous to its naval officers, nor should it be; in no country in the world are they so well provided for.

It seems to be admitted on all sides, that some of the best ships in the service have come from the hand of the Chief Naval Constructor; but by the small insight which is given in a late number of the Army and Navy Chronicle, with respect to some of the ships of the navy, it appears he was fettered; and if other cases should be brought to light, they will all be found to be the same. It is exceedingly difficult to obtain information on some subjects connected with the navy, and it is only on such occasions as the above that we can see how these things are managed.

If it is considered that the *Chief Constructor* understands *naval architecture* as well as the *Navy Commissioners*, why is it that they alter the plans of the ships, and decide upon the particulars of their construction?

It may be very flattering to an individual to imagine that a subject, which is usually considered as requiring great knowledge and judgment, has been altogether executed by his direction, (whereas, it appears, in fact, that it has only been made to answer in spite of them,) and it may be very pleasing to experiment upon so large and expensive a scale; but sooner or later those that pay must find out the delu-

sion, and will demand a strict reckoning. It appears to be much more advantageous to be a civil engineer in the employment of the Navy Department, than to study naval architecture, and become Chief Naval Constructor. The civil engineer is better paid, and gets credit only, or discredit, for his own work. This shows clearly the opinion which those "in authority" have of naval architecture. The course pursued may be, indeed it must be, and is, successful in depressing naval architecture in the Government service; but it is about as commendable as would be the conduct of the head or president of a college, who should employ only such professors as had less knowledge in any branch or department of science than himself, or of the President of the United States who, as commander-in-chief of the army and navy, should dismiss, or cause to retire from the service, all such officers as were possessed of knowledge superior to his in military or naval affairs.

The late Mr. ECKFORD, of this place, has been repeatedly and distinctly heard to say, "that no young man of any pride or knowledge of his profession would, under the present organization, enter the service of Government; that for his part, when he was in it, it was a constant mortification; his suggestions were received, if received at all, with haughtiness, and unnoticed; and he quit that service in disgust, in which he was to get neither money nor credit."

That there should be at the head of every naval establishment an officer of the navy, of high rank and knowledge, has never been questioned; and this is, in fact, the case in all maritime nations. Through this officer all orders should be given, and all communications made; and there could be no doubt but that his opinions and experience would have great weight. There would be no difficulty, and a model can readily be found, for a proper organization of the navy of this country. A statement has somewhere appeared, showing the amount of money appropriated to the navy since the present organization, which was enormous. What is the present condition of our navy yards and ships, and what would have been our state if we had gone to war with France?

The honor, gallantry, and professional knowledge of any of the Boards of Navy Commissioners have never been questioned; each has followed the footsteps of its predecessors, and will, in turn, be followed by others, all changes of individuals but increasing the evil. The system must be changed; there must be responsibility and a division of the duty. Let us reflect for a moment what a mass there is for the three officers composing the Navy Board to digest: beef, pork, molasses, iron, whiskey, copper, beans, rigging, bread, cables and anchors, canvass, rice, flour, pitch, butter, oakum, vinegar, sails, masts and spars, slop clothing, medicines, ballast, all kinds of machinery, tar, maps and charts, nautical instruments, *plans of ships and all the particulars of their construction*, guns, gun carriages, shot, steam and gunpowder; the supervision of ten or twelve different kinds of mechanics; all new works on nautical subjects, and the numerous scientific communications of the officers of the navy to examine; the state of the ships abroad and at home; the whole supervision of the expenses of the navy, its police or regulations; all navy bills from the two Houses of Congress; besides a vast deal of other matters which may never have before fallen under their observation. Can it be expected that the nation shall get the worth of its money? It is pretty generally admitted that it does not. When this subject is examined, it will be found that in our navy, system, uniformity, and true economy are much wanting.

The department of construction must be brought out from among this mass, and placed upon a footing of equality which its importance demands, and placed under the direction of a responsible naval architect. Then, and not till then, will the ships of our navy be

what its officers and the country have a right to look for and demand.

The paper on the stowage of ships, by M. N. K., from "Morgan and Creuze's papers on Naval Architecture," has appeared in the Army and Navy Chronicle before; * the only alterations and additions which have been made is to leave out some very important observations.

An attempt may be made in the next to follow M. N. K. in his remarks on the particular ships of our navy.

B. B.

NEW YORK, March 29, 1833.

* In the Military and Naval Magazine for April, 1835. As not many of the present subscribers to the Chronicle had probably seen the observations, their republication at this time was thought not to be amiss.—*Ed. A. & N. C.*

BATTLE OF THE OKEE-CHO-BEE.

The Globe, of the 4th April, contains an article copied from the Missouri Argus, signed by several officers of the Missouri volunteers, who performed a conspicuous part in the engagement of the 25th December, on the borders of Lake Okee-cho-bee, denouncing, in no measured terms, the official report of this engagement, and complaining most bitterly of the treatment received by them from the officers of the regular army during their short term of service in Florida.

With regard to the conduct of Col. TAYLOR, from the commencement of his march from Tampa Bay, to the moment of his return to Fort Gardiner, on the Kissimmee, we have thought it unnecessary to speak, considering it as unexceptionable, and meriting, in the highest degree, the applause and commendation of every American citizen who is jealous of the honor of his country. Under this impression, we have not for a moment doubted that the PRESIDENT and Senate of the United States would, sooner or later, be found acting in concert, and vying with each other, in acknowledging and paying due homage to the merits and bravery of a distinguished, gallant, and victorious officer. That we judged correctly is made evident by the fact that Col. Z. TAYLOR, of the 1st Infantry, commanding officer in the battle of the Kissimmee, is now Brevet Brigadier General TAYLOR, Commanding General of the army in Florida.

But with regard to the attack made against the officers of the regular army, by these members of the Missouri Volunteers, the case is somewhat different; the attack being general, it was, no doubt, presumed that upon the principle of that which is every man's business is attended to by none, the remarks set forth in that statement might pass unnoticed, and without contradiction. Such would doubtless have been the case, and the matter treated with the silence of contempt, but for the accidental appearance of a correspondence published in the Missouri Republican, between several officers of this same corps, of high standing and unimpeachable integrity, with the commanding officer of the regular troops, with whom these volunteers were associated in their short tour of active duty. This correspondence proves so conclusively that the conduct of the officers of the regular army towards their volunteer brethren in arms was marked by that "courtesy and amenity of manner" which have ever characterised the soldier, and it is to be hoped ever will, it is deemed to be all that is necessary to lay it before your readers, to prove the falsity and malicious feeling embodied in the statement originally published in the Missouri Argus, and thence transferred to the columns of the official organ in Washington. The remarks alluded to in this statement are as follows:

"Why, then, did Col. Taylor slight them, or seek to dishonor them, [the Missouri Volunteers,] whilst lavishing praise, no doubt deservedly, on every officer and

soldier of the regular army within hearing of the battle? For ourselves, although we received no evidences of kindness from those officers generally, but, on the contrary, from the first moment of our joining the army till we left it, the most continual and positive manifestations of their contempt and dislike towards us, we cannot refrain from expressing our admiration of their valor on the day of battle; and we confess our mortification at the fact that they have not shown themselves equally generous to those who shared equally the dangers and sufferings, and are entitled to share equally the glory of that day. It is indeed a deplorable state of things, equally destructive of good feelings and detrimental to the service, that those called from their homes and families, to aid the hired troops of the Government, [hired, forsooth!! Gentlemen volunteers, did you serve without pay?] should, after enduring throughout a tedious and harassing campaign, the scorn and contumely of those with whom they act, be covered with shame and dishonor for their toil, by this same paltry feeling of jealousy betwixt the different kinds of troops in the field."

After reading the correspondence hereto annexed,* further comment would be superfluous; but we may be justly pardoned for quoting from this paltry production a few words, as the expression of our decided opinion of its merits and claim to credibility, applying the remarks intended for Colonel TAYLOR to those individuals who have so rashly fathered them. "Strange and unaccountable misconception—or yet more wonderful and wilful misrepresentation."

Having endured, by their own confession, the "scorn and contumely of those with whom they act," and showing no signs of having resented such treatment, otherwise than by appending their signatures to a scurrilous newspaper article, published almost two thousand miles from the scene of action, we leave them to the full enjoyment of their own unenviable feelings. Should there exist a small, devoted band, who have been thus treated, the cause can only be found in the supposition that they must have deserved it.

MILES.

*See previous page. If we could have procured a copy of the publication alluded to, we should have published that also, so as to have given the whole subject.—*Ed. A. & N. C.*

ON OFFICIAL CORRESPONDENCE.

There is nothing in which our officers are more careless, than in their official correspondence, if we may judge from the public documents printed for the use of Congress. Official papers, especially military papers, should be written with perfect simplicity, free from any attempt to flourish, detailing matters technically, but without ambiguity. The subject should be strictly treated. If a report of a battle, bombast should be avoided; elegant simplicity, natural description, and faithful detail, should mark its character. If a letter of complaint, the language should set forth the injury complained of in temperate terms, without resort to unnecessary epithets, as all epithets generally tend rather to weaken than strengthen the complaint; for the proprieties of military life are to be guarded with peculiar nicety. Contempt for the person of an adversary never justifies a departure from the considerations appertaining to official stations. An indulgence in uncalled for expressions, or opinions, of individuals not concerned, especially if such expressions or opinions tend to irritate or wound the parties alluded to, can produce no other effect than to bring the writer of them into collision with the party offended, and, finally, lead to consequences that may prove highly injurious to the writer himself, if not fatal to his character, as a soldier and a gentleman.

The truly brave man never intentionally gives offence; if he should, he is ever ready to repair the injury by every fair and honorable means. Officers then, both of the army and navy, should be always on their guard, as to the style and substance of their

communications, avoiding all unnecessary display, and confine themselves to the naked facts to be communicated, as it is more than probable that what they write, sooner or later, may come before the eye of the public. It is best to make each distinct subject a separate communication, as long letters, filled with various topics, are seldom or never read with pleasure, by official men; nor so well received and considered, as those less prolix and free from extraneous matter.

The best examples of military correspondence, and of orders, are to be found in the writings of General WASHINGTON, and those of the Duke of WELLINGTON. They might be read by our military men with advantage, and should be regarded by them as models worthy of their imitation—WASHINGTON'S especially, as there they will find examples of moderation, patriotism, forbearance, submission to authority, dignity and simplicity of style, with all the proprieties and courtesies which distinguish the officer and well bred gentleman.

MENTOR.

DOMESTIC INTELLIGENCE.

From the Savannah Georgian, Extra, April 11.

FLORIDA INTELLIGENCE.

The subjoined paragraph, which we were made to publish (as given to our news collector) on Saturday 31st ult., as a portion of news from Florida, we are authorized to say, is a weak imposition. "There is no such individual in the regular, volunteer, or militia service. It was untrue from beginning to end." We believe the imposition was practised on our immediate informant, as he, we are satisfied, is above practising such a deception.

Our intelligence (apart from rumors) from Florida is as authentic as any paper can procure, and the dissemination of an idle fabrication under the belief of its truth, cannot, when contradicted, impair the credibility of our sheet for news.

From the Georgian, of 31st ult.

"On Sunday last, we are also informed, Captain Hewson, in command of two companies of dragoons, arrived at Fort Mellon. About three days' march from that fort, he states, that while crossing a large cypress swamp, he struck a trail of Indians, pursued and overtook them. They were in number twenty or twenty-five. Captain H. lost four of his men in the attack, and was wounded himself in the abdomen, but not dangerously. He took four prisoners, and killed, as is supposed, several of the Indians; the balance escaped. It is reported that Coacoochee or Wild Cat is one of the prisoners."

NEW ORLEANS, March 31.

GENERAL GAINES.—This distinguished veteran of the army has tarried several days in our city on his way to the western frontier. He will depart shortly for the Sabine river, in the steamer Velocipede, with a view to reconnoitre the country adjacent the boundary line, and select proper sites for fortifications.

The U. S. steamer American, Beard master, arrived at this port yesterday, from Tampa Bay, with the two corps of Indians (Delawares and Shawnees) employed by the Government to operate against the Seminoles. They are in good health and spirits, and will proceed in the same boat to St. Louis, on Sunday morning, thence to their own hunting grounds in the "Far West."—*Commercial Bulletin.*

Correspondence of the New York Daily Express.

ST. LOUIS ARSENAL, March 4, 1833.—Orders from Washington have been given for Gen. Gaines to select sites for a cordon of posts for the defence of the western frontier, and afterwards instructions were sent for him to draw up a report, from his previous knowledge of the topography of the country,

before he should depart for examination of the sites. The following sites are proposed: The first at the mouth of the Sabine river; second, where the 32° degree of north latitude intersects either fork of the the Sabine; third, at or near Fort Towson, on Red river, near the mouth of the Kiameche; fourth, at or near the point at which the national boundary line commences its northerly direction from the left bank of Red river; fifth, at or near the Arkansas, where the national boundary, running north from the Red, intersects with the Arkansas river; sixth, near Fort Gibson, or between that post and the mouth of the Canadian Fork of the Arkansas river; seventh, at or near the point where the upper road, leading from Fort Gibson to Fort Leavenworth, crosses the Osage river; eighth, at or near the mouth of the Big Platte, on the right bank of the Missouri river; ninth, at or near where a line drawn from the mouth of the Big Platte to the mouth of the St. Peter's crosses the Des Moines river; tenth, where Fort Snelling now stands; eleventh, near the west end of Lake Superior. To garrison all these posts, the General wants about 8,900 men. As to the description of works for these different sites: Fort the first and eleventh, strong works, like Fort Jackson, below New Orleans, with garrisons of twenty companies—or two regiments of either infantry or artillery at each post. For the nine others: A stone or brick wall in the form of a square, the side being about 500 feet, defended by two towers at opposite angles; the barrack also of stone, and on the same diagonal as the towers, but so placed that the front and rear of it can, should it be necessary, be defended by the towers—to be 450 feet long and 60 wide, with four stories, and having arched passages 12 feet wide; one running in the middle of the building, and lengthwise, the other in a corresponding manner, and perpendicular to the first. This sized barrack is calculated for the comfortable accommodation of 15 companies of infantry, artillery, or dragoons, with store room for one year's supply of all the requisite munitions of war. The reason of the building being recommended to be so high is, that it is desirable to be able to defend the work with a very small portion of its garrison—that the greater portion may act in the field. Within the walls also to be—two stables parallel to the barrack, and on either side of it, and two magazines. These works can be defended by one-fifth of the entire garrison, so there would be a disposable force of 12 companies. The roofs of the towers, and of all buildings, to be nearly flat, and covered with thick sheet lead; the shutters and doors to be secured from fire or rifle shot by thick sheet iron. For each post, a reservation of public land, equal to one township, or so much as may be sufficient to place every foot of land and water, within three miles of the fort, under the permanent and entire control of the commandants of the posts respectively.

To facilitate the communication, it is proposed that roads be laid out between the different posts, and made by the troops; all bridges to be made of stone and arched, when that material can be had.

Then as to the manner of supplying these posts with munitions of war and troops, from places of deposit on the Mississippi, Missouri, or other navigable rivers. To effect this, a system of railroads, with steam power applied to vehicles of land transportation, is strongly recommended. Reasons or arguments in favor of this project, no one of military mind can require, and others must approve, because these roads will contribute to render our country invulnerable in war, by the very means which will enrich it in peace.

To obviate the great and growing evils which are practised by Indian traders, whiskey sellers, and other vagabonds on the western frontier, it is strongly urged by the General that martial law, in respect to all white men and negroes, be extended to every

part of the frontier and throughout the Indian territory; and that all Indians found on our side of the boundary line be also subjected to martial law; and that a few companies of mounted infantry or dragoons be held in readiness, as a part of the disposable force for each military post, to arrest and imprison all white men and negroes found beyond the boundary, and all Indians found on our side of it.

A more striking instance, perhaps, could not be given, gratifying alike to us, and illustrating the persevering energies of the man and officer, than the trip through the lake and entrance into our harbor, (for the purpose of landing troops, and obtaining supplies of wood, &c.,) of the steamboat *Robert Fulton*, under Lieut. Commanding J. T. HOMANS, of the United States navy. Unparalleled as it is in the records of Lake navigation—being made in the most perilous season of winter, when the streams (tributaries of the Lake) whose outlets form the majority of the harbors upon the south shore of Lake Erie, were closed with ice. Without any apparent difficulty, and at the hour of midnight, Capt. Homans brought the *Fulton* alongside the public dock—an undeniable evidence of the ease and safety with which we may be approached.

In the *Erie Observer*, of the 24th ult., it will be seen that we are indebted to Captain H for a favorable mention of our place to the Department, as best adapted for the establishment of the contemplated navy yard, (designed to aid in the protection of the northern and western frontier,) from the resources that we are possessed of for building, repairs, and equipment of shipping. We cannot permit this opportunity to pass without testifying our high regard for him, and of the estimation in which he is held by our citizens. As an officer, we wish him a long career of usefulness, and honors to reward his persevering application to public duty.—*Erie, Pa., Gaz.*

FIRST STEAMBOAT UP THE SABINE RIVER.—As it may be interesting, if not beneficial, to many of our numerous readers, both in the United States and Texas, to be informed that the Sabine river is now navigable for steamboats for near the distance of four hundred miles: we publish the following particulars, for which we acknowledge ourselves much indebted to Captain Walker, of the U. S. army. He was a passenger on the *Velocipede*, on her trip down the Sabine, and was so kind as to furnish us with a statement of his views and observations made on the voyage. The question whether the Sabine river is navigable by steamboats, is now sufficiently tested. The steamboat *Velocipede*, under the command of Captains Wright and Delmore, with a length of 125 feet, a breadth of 32 feet, and a draught of 5 feet, has returned from her trip up the river, having ascended it as high as Gaines' Ferry, a distance of 350 miles. This is about 12 miles above the landing for Camp Sabine, at which point the United States troops commenced their operations in removing the obstructions to the navigation of the river, by order of the War Department, in September last. In the voyage to this landing, and returning, the boat did not sustain the slightest damage, the whole trip being accomplished in four days, in which must be included detention necessarily caused by the preparation of fuel. To those who have doubted the practicability of rendering the river navigable, these facts should be conclusive.

Much credit is due, for their labor and perseverance, to the officers who have, under the orders of the Secretary of War, opened this navigation. The raft, which was deemed by many an insuperable barrier to navigation on the Sabine, was removed in four weeks. The officers of this command are Major Belknap, commanding, Captain Lewis, Lieutenants Blanchard and Eaton, of the 3d U. S. Infantry, and Assistant Surgeon Birdsall.—*New Orleans Commercial Bulletin.*

A letter received in this city, dated Valparaiso, Dec. 27, from an officer on board the U. S. ship *Falmouth*, Commander McKeever, mentions the safe arrival of that ship at that port, after a passage of fifty-three days from Rio Janeiro, eighteen of which were spent in doubling the Cape, they having proceeded as far south as lat. 59. The *Falmouth*, off Cape Horn, picked up a boat containing six men, belonging to an American sealing ship, who had been left on a desolate island for skins, their provisions all gone, on their way to Port Desire, when the timely appearance of the *Falmouth* relieved them.—*Boston Mercantile Jour.*

H. B. M. ship *Hercules*, 28 days from Cork, arrived at Halifax on the 26th of March, with four hundred troops, being detachments from the 15th, 34th, 66th, and 85th regiments.

MISCELLANY.

From the United Service Journal.

ACCOUNT OF MR. WHEWELL'S RESEARCHES ON THE TIDES.

The Royal Society of London, at its anniversary, on November 30, awarded one of the Royal Medals to Mr. Whewell for his researches on the Tides contained in various memoirs in the *Philosophical Transactions*. We shall endeavor to give a general view of the results of these researches.

Mr. Whewell's labors have been directed principally to three points:—the motion of the *tide-wave* in the different parts of the ocean; the comparison of the *observed* laws of the tides at certain places with the *theory*; and the laws of the *diurnal inequality* of the tides.

1. Mr. Whewell's *first* memoir on the subject of the Tides appeared in 1833, and was entitled—"Essay towards a First Approximation to a Map of Cotidal Lines." By *cotidal lines*, Mr. Whewell denotes lines drawn on the surface of the ocean, and passing through all the points when it is high-water at the same moment. Thus it appears that high-water takes place at the same time on the coast of Guinea and on the opposite coast of Brazil—namely, about seven hours after the moon's transit; and it is hence inferred that the *cotidal line of seven hours* passes across the Atlantic in the neighborhood of the equator. By using all the materials which he could procure, (contained in books of astronomy, navigation, sailing directions, voyages, &c.,) Mr. Whewell endeavored to trace the cotidal lines of each hour over the greater part of the surface of the globe. He was able to draw these lines with considerable confidence and accuracy for the whole of the coasts of Europe, the Atlantic and Indian seas, and the neighborhood of New Zealand. The greater part of the Pacific remained a blank: and in that condition it still continues, for want of sufficient tide-observations in the islands on the west coast of America and in the China seas. These cotidal lines, it is easily seen, exhibit the progress of the *tide wave*.

In order to correct this First Approximation, so far as the European shores are concerned, Mr. Whewell procured very extensive series of observations to be made. The coasts of Great Britain and Ireland are occupied by 547 stations of the Coast Guard, whose business it is to prevent smuggling. The director of this service, Captain Bowles, ordered tide-observations to be made and continued for a fortnight at each of these stations, in June, 1834. The examination of the results of these observations gave a more exact view of the progress of the tide-wave along the coasts of Great Britain and Ireland. But in June, 1835, these observations of the British Coast Guard were again repeated for a fortnight, in conjunction with the contemporaneous observations made by order of the maritime powers of Europe and North America, upon their own coasts—namely, at twenty-

eight places in America, seven in Spain, seven in Portugal, sixteen in France, five in Belgium, eighteen in the Netherlands, twenty-four in Denmark, and twenty-four in Norway. The observations thus extended from the mouths of the Mississippi to the North Cape of Norway.

The results supplied by these observations were obtained by calculations made at the Admiralty by order of Captain Beaufort, the hydrographer. These results were stated by Mr. Whewell in his *third* and *sixth* series of Researches on the Tides; *On the Results of Tide Observations made in June, 1834, at the Coast Guard Stations of Great Britain and Ireland.*—(Phil. Trans. 1835;) and *On the Results of an extensive system of Tide Observations made on the Coasts of Europe and America in June, 1835.*—(Phil. Trans. 1836.) In the latter memoir was given a new map, containing a *second* approximation to the cotidal lines of the European coasts: and also a map, in which the different height of the tide at different points of the coast was indicated by a peculiar notation—namely, by drawing lines parallel to the coast and close to each other, so as to make a kind of shading, the number of lines denoting the number of yards between low and high-water at spring-tide. The different rise of the tide at places near each other, was thus brought into view in a striking manner. The general form and distribution of cotidal lines will be best understood from inspection of Mr. Whewell's maps. But we may remark that a peculiar aspect is given to them by a disposition which they manifest to crowd in upon the shore, so as to condense themselves in its neighborhood, and to follow its outline. Also, in several cases, their form is curiously modified by tides which arrive by separate channels, interfering with each other; and, in some cases, by a tide interfering with itself without any separation of channels. The most curious known example of this is the German Ocean, which appears to consist of two systems of cotidal lines, in which the motion of the tide-wave is rotatory. For the tide wave which enters the German Ocean between the Orkneys and Norway, sends a detachment in a southerly direction, along the coast of Great Britain; but this portion appears to turn off eastwards at the projecting land of Norfolk, and to proceed along the north coast of Germany till it falls in with the main expanse of the wave on the shores of Denmark. And the narrower sea between Suffolk and Kent on one side, and Holland and Belgium on the other, is occupied with a tide-wave, which, though a continuation of the former on both sides, may be conceived as performing a separate revolution: for the tide-wave travels towards the Straits of Dover, on the English side, and from the Straits on the Belgian side; and the tide at Yarmouth is a little later than at the Texel, which may be considered as indicating the completion of the circuit.

The present state of theoretical hydrodynamics throws very little light upon the causes of these curious phenomena. In order to see the mechanical reasons for the forms and distribution of the cotidal lines, it would be necessary to solve the problem not only of the motion of a wave in a *canal* of variable depth, but in a *basin* of variable depth and given form, a problem hitherto unattempted; and the extreme smallness of the tides in the middle of wide oceans, as the Atlantic, where they are only two or three feet, and in the Pacific, where they are said to be imperceptible, shows us that we do not yet know how to represent to ourselves the tide-wave moving round the globe.

2. Such is the chasm between observation and theory, so far as the relations of the tides in *space* are concerned; their relations to *time*, that is to the motions of the sun and moon, although very far from being explained by the theory, have still led to very important comparisons, the second subject of Mr. Whewell's labors, but one in which Mr. Lub-

bock had already led the way. In the Philosophical Transactions for 1831, Mr. Lubbock showed, from nineteen years' observations at the port of London, that a very close accordance prevails between the laws of observed tides and the equilibrium-theory of Bernoulli, especially in the law of the interval by which the time of high-water follows the time of the moon's transit. This interval is subject to an inequality which goes through its cycle of values in half a lunation, and has hence been termed the *semi-menstrual inequality*. The law, and, in a great degree, the magnitude of the inequality, were found to agree with the theory to a great degree of accuracy. Also, in the Transactions for 1835, Mr. Lubbock published a discussion of nineteen years' observations of the tides of Liverpool; from which Mr. Whewell, in the Transactions for the ensuing year, showed a very exact agreement with the theory, as to the semi-menstrual inequality, both of the times and of the heights of high-water.

Mr. Lubbock's discussions of these tides gave the effects of the moon's parallax and declination, and it was a matter of interest to compare these with the theory. This Mr. Whewell did in his *Second* and *Fourth* Series of Researches on the Empirical Laws of the Tides in the port of London, (Phil. Trans. 1834;) and on the Empirical Laws of the Tides in the port of Liverpool, (Phil. Trans. 1836.) He there showed that there obtains between the theoretical and the observed inequalities, not an agreement, but at least a correspondence. For instance, according to the theory, the effect of the alteration of the moon's parallax upon the time of high-water would be proportional to the change of the parallax and also to the sine of the double hour angle; but in fact the effect was proportional to the change of parallax, and to the sine of the double hour angle *plus a constant quantity*; the epochs of the hour angle being somewhat altered with the parallax, and the changes produced by the alteration of declination had a similar relation to the theoretical changes. Mr. Whewell suggested various modes, all necessarily imperfect, of representing these effects of lunar parallax and declination, and of accounting, in some measure for the deviation from the equilibrium theory. But the most promising of such attempts was that which was contained in the mode adopted by Mr. Lubbock, of referring the tide not to the lunar transit immediately preceding, but to an anterior lunar transit, one, two, or more days preceding. It may be easily seen that this procedure might explain that which we have stated as the result of observation; for since the change of the moon's hour angle from day to day is more rapid as the parallax is greater, (the moon being then nearer the earth and moving quicker,) if we refer the time of high water to the transit of Tuesday, when it ought to be referred to the transit of Monday, we introduce into the interval a difference which is the parallax multiplied into a constant quantity, and thus the constant quantity above noticed might, it was conceived, be made to vanish by referring the tides to a proper anterior epoch. The validity of this ingenious conjecture was tested in Mr. Lubbock's memoir in the second part of the Philosophical Transactions for 1836.

It then appeared that, although a great part of the difference between theory and observation in the London tides may be explained by referring each tide to the transit which precedes it by about fifty one hours, yet that the whole difference cannot be thus explained. Even the semi-menstrual inequality requires us to assume the *epoch* of the anterior tide different by about twenty-five minutes for the height and for the time of high water; and the comparison of observed and calculated parallax still leaves a small constant quantity in addition to the sine of the double hour angle. The inequalities arising from lunar parallax and declination therefore, although obviously conforming in a general manner to the equilibrium theory, can-

not, it would seem, be exactly represented by any modification of that theory.

We may observe, that if we obtain an exact accordance of this kind, it would still remain for hydro-nautical reasoners to show that such an accordance follows from the mechanism of fluids—that is, that in a fluid in motion, acted upon by variable forces, the wave which is produced by the tendency to equilibrium undergoes changes of magnitude and velocity such as correspond to the changes of magnitude and place in the *fluid hill* which the forcing would produce if the fluid were to assume a position of equilibrium. This hydro-nautical proposition, or something approaching to this, may be true; but we are as yet destitute of all proof of such a property.

The very exact manner in which the effects of lunar parallax and declination in the Liverpool tides were represented by Mr. Whewell's empirical formulæ, induced him to attempt to extricate from the residual quantities, the *solar correction*. This he attempted in his Fifth Series of Researches; and he again found a result in its general features agreeing with the results of the equilibrium theory.

3. In the same *fifth* series, Mr. Whewell directed his attention to the *diurnal inequality* of the tides at Liverpool. That the tides at certain places are affected by a diurnal inequality had been known from the time of Newton; but the true laws of this inequality had never been stated. It was detected by M. Dession and Mr. Bywater in the Liverpool observations; the former calculator being employed by Mr. Lubbock, in the discussion of the Liverpool tides, and the latter having had his attention directed to it by Mr. Whewell's earlier researches. But this inequality appeared in a far more conspicuous and regular form in Mr. Whewell's *Seventh Series of Researches—On the diurnal inequality of the height of the tide, especially at Plymouth and Singapore*, (Phil. Trans. 1837.) It was there shown that the diurnal inequality at Plymouth, gave a difference between the height of the morning and evening tide, which, at its *maximum*, amounted to a foot and a half; and which, in the course of each half lunation, went through a cycle, with a regularity not inferior to that of the other phenomena of the tides. The law of this cycle was unexpected and curious.

It appeared that the diurnal inequality which, according to the theory, ought to vanish when the moon is in the equator, and which had been asserted by La Place to do so in fact, does in reality vanish *four days* after that period at Plymouth; and in general has its magnitude and changes determined by the moon's declination four days anterior to the time of observation.

But another still more striking example of the diurnal inequality was found at Singapore, in the Indian seas. In this case, observations had been made for about a year by Mr. W. Scott, the Master Attendant at that port, in pursuance of directions given by the Directors of the East India Company. These observations are proved to be correct by their containing a very exact exhibition of an inequality, of which the laws were till then unknown, and which reaches at that place a magnitude never anticipated. The diurnal inequality at Singapore produces a difference of nearly two feet in the heights of high-water; but in the height of low water it produces a difference between two successive tides, of not less than *six feet*—an amount much greater than the difference of height of neap and spring tides. This diurnal inequality follows a law similar to that of Plymouth, but with a different interval of time: being determined by the moon's declination at the *fourth* transit, (whether north or south,) reckoning backwards from the tide, that is, 36 lunar hours previous to the last transit: and the correctness of this rule is so remarkable, that the curve representing the theoretical formula agrees with the curve representing the observations, almost as nearly as if it had been drawn for the sole purpose of cutting off accidental inequalities.

By the calculations of Mr. Bunt and Mr. Bywater, for Bristol and Liverpool, it appears that the diurnal inequality at these points corresponded to the moon's declination, *five or six days* anterior to the tide. There appeared, therefore, reason to think that this *epoch*, or back period, by which the inequality was determined, was different at different places. In order to decide this point, Mr. Whewell undertook the investigations contained in his Eighth Series of Researches—*On the progress of the diurnal inequality wave along the coasts of Europe*, (Phil. Trans. 1837.) In this, he examined the diurnal inequality, both at low water and at high water, at seventy-one places, according to the observations of June, 1835. The result was, that there was not any great progressive change in the epoch of the diurnal inequality, such as he had conceived to be indicated by his former investigations. The changes at different parts of the European coasts are small, and apparently due to local causes; and if we conceive the diurnal inequality to be brought by a daily tide-wave which arrives at intervals of twenty-four lunar hours, this wave must be supposed to travel along our shores at the same average rate as the half-daily tide-wave which brings every tide.

The enormous diurnal inequality at Singapore could not fail to remind persons acquainted with the subject of the tides, of other asserted peculiarities of the tides of places in the Indian seas. For instance, the tide of Batshan, in Tonquin, which in Newton's time was asserted to take place only once a day; and the tides on the coasts of Australia, where in several places there is said to be only one tide in twenty-four hours; and in others there is known to be a large diurnal inequality. Mr. Whewell shows that a large diurnal inequality might, during a part of a lunation, produce the appearance of there being only one daily tide; and he was enabled to give what seems to be an example of such a case, by means of the observations of Capt. Fitzroy, at St. George's Sound. Probably the peculiarities thus occasioned have given rise to the strange story which has lately been brought to this country, that at some place or places on the coasts of Australia the tide so far deviates from its usual laws as to occur every successive day *earlier* by a certain interval than it occurred the preceding day, instead of coming later and later every day, as, being governed by the moon, it must do.

These are the main results of Mr. Whewell's researches. In the course of them he made many suppositions and conjectures which he afterwards abandoned or modified. For example,—when it appeared that the changes in the tide due to the moon's parallax and declination corresponded so nearly with the changes in the equilibrium tide at certain anterior epochs, Mr. Whewell endeavored to express the phenomena of the tides in Europe, by supposing an equilibrium tide to be generated in certain parts of the Southern Ocean, and propagated to this part of the world along certain channels. But it was not found easy to modify these suppositions so as to give results agreeing with the phenomena. Indeed, till we know the nature of the progress of the tide in the Southern Ocean and the Pacific, from observations, so as to trace the great tide-wave in a revolution around the earth, it is not likely that we can form a correct idea of the general movement of the waters, or look at this motion with a just reference to its hydrodynamical principles. Though much has been done, the present state of the subject points out much more which remains to do.

In the mean time it may be observed that the results already obtained are of no small interest and importance. The proof of the agreement of the facts with the equilibrium theory must be considered as a very great step in the subject, although the application of that theory has not yet been justified upon mechanical principles. And the determination of the laws of the diurnal inequalities not only brings into

view a very remarkable feature of the hydrodynamic problem, but affords a means of materially improving the tide tables. It has already been introduced into those of Liverpool, Bristol, and Plymouth; and also into those of London by Mr. Lubbock, although at that port the inequality appears to be small and irregular as compared with other places. And if the map of cotidal lines could be completed, (which may be hoped in the course of a few years, now that the attention of nautical men and others is directed to the subject,) that map, with a few additional tables, would be a universal tide table, predicting the tides in every part of the world with an accuracy and certainty incomparably beyond any thing which would have been thought possible a few years ago.

Mr. Whewell, in his last paper, urges the necessity of every maritime nation, laboring to make out the laws of its own tides. He states that the labor of calculation requisite is so great, and the peculiarities of the tides so numerous, that it is only in this way the subject can have justice done to it; and he adds that our best generalizations will be collected from results obtained in separate ports, and combined. On this account he has hitherto pursued the course of the diurnal inequality only on the coasts of Europe, although the materials afforded by the observations of June, 1835, would also give its progress along the shores of North America.

ARMY.

OFFICIAL.

SPECIAL ORDERS.

March 26—Lieuts. R. S. Dix and W. K. Hanson, 7th Inf., relieved from recruiting service, and ordered to their regiments with a detachment of recruits.

No. 19. April 17—Asst. Sur. Baldwin, to repair to Fort Cass, Tenn., for duty.

MEMORANDUM.—115 recruits, under command of Lieut. Hanson, sailed from New York on the 9th April, for Fort Gibson, via New Orleans.

NAVY.

ORDERS.

April 11—Mid. J. L. Blair, Exploring Expedition.

14—Lieut. G. A. Magruder, and Mid. C. M. Fauntleroy, frigate Columbia.

16—Lieut. G. M. Hooe and T. M. Washington, and Mid. C. W. Hays, W. I. Squadron.

OFFICERS DETACHED AND RELIEVED.

April 10—Lieut. J. F. Schenck, from W. I. Squadron. Lieut. G. A. Prentiss, from ship Erie.

11—Mid. J. O'Shaunessy, from W. I. Squadron.

Lieut. J. L. Lardner, from ship Independence. 12—Asst. Sur. W. W. Valk, from order to ship Natchez, and leave 3 mos.

P. Mid. T. M. Brasher, from Rec'g ship Hudson.

16—Mid. G. W. Hamersley and S. Smith, from frigate Columbia.

APPOINTMENT.

Elisha Whitten, acting Gunner, April 15, 1838.

VESSELS REPORTED.

Ship Erie, Com'r Ten Eyck, arrived at New York on the 4th inst., from a cruise of 53 days on the coast.

Ship Ontario, Com'r Breese, and schr. Grampus, Lt. Comd't Saunders, sailed from Pensacola, 4th inst., for Vera Cruz.

Ship Boston, Com'r Babbit, at Pensacola from Tampa Bay, previously to the 4th inst.

Frigate United States, Capt. Wilkinson, at Lisbon, Feb. 19th, from Cadiz.

Ship Falmouth, Com'r McKeever, at Valparaiso, Dec. 27, in 53 days from Valparaiso.

Ship Levant, Com'r Paulding, has sailed from Hampton Roads for Pensacola.

Ship Natchez, Com'r Mervine, at Vera Cruz, March 23; to sail 24th for Texas.

Brig Washington, Capt. Hunter, at New York on Sunday last, from Baltimore.

DEATHS.

At Elizabethtown, N. J., on the 4th inst., META, youngest daughter of Capt. W. D. SALTER, of the U. S. navy, aged 6 years and 5 months.

At St. Louis, Mo., on the 12th ult., Mrs. HARRIET NOEL, wife of Capt. THOMAS NOEL, of the 6th regiment U. S. Infantry.

At Portsmouth, N. H., on the 6th inst. Captain THOMAS M. SHAW, of the Revenue Cutter Service, and late commander of the cutter Madison.

At the Marine Barracks, Washington, on the 12th inst., Sergeant THOMAS BRADLEE, aged 36 years.

TRANSPORTATION OF STORES.

NAVY COMMISSIONERS' OFFICE, }

April 13, 1838. }

PROPOSALS, sealed and endorsed, will be received at this office until 3 o'clock, P. M., of the 27th instant, for the transportation of provisions and stores to Valparaiso, or Lima, or both, if required.

The shipments will be made from the Navy Yard at New York in two vessels. One vessel will be required to be at the Navy Yard at New York, ready to load, by the 21st day of May next, to take on board *about* the bulk of 2,700 barrels. The other vessel will be required at the same yard, ready to take on board, by the 20th day of June next, the remainder of the stores, which will be *about* 2,700 barrels, *about* 1,014 of which will be wet, the residue dry and measurement goods.

Each of the vessels offered must be able to carry the full amount of 2,700 barrels; the capacity in barrels of each vessel offered must be specified, and their names and the place where they are then lying; and if they should prove insufficient to carry the full quantity for which they are offered, ten per centum to be deducted from the price, payable by the charter party, to cover the injury to the United States, but no freight to be paid beyond the amount due for articles which may be actually carried.

The rate or standing at the insurance offices must be stated, and no vessel will be accepted until satisfactory reports shall be received of their capacity and character after surveys shall be made by order of the Commissioners of the Navy.

The offers must specify the price asked for all barrels round, without discrimination of wet or dry barrels, or measurement goods.

Five and a half cubic feet of measurement goods, and thirty gallons to the gauge of all casks not usually called barrels, whatever they may contain, to be considered as a barrel.

No primage to be allowed, nor must any be asked in the proposals.

The freight money will be paid in the United States by the navy agent at New York, or at such other place as shall be directed, within thirty days after proper certificates are exhibited to the said navy agent of the safe delivery of the respective cargoes, agreeably to the bills of lading, signed by the United States navy storekeeper, or agent, or by the senior naval officer present at the place of delivery.

Fifteen lay days to be allowed, exclusive of Sunday and holidays, at each of the ports of Valparaiso and Lima, should both ports be used.

And the offers must specify the rate of demurrage to be demanded in case of greater detention.

Fuller information as to the nature of the stores and kinds of packages to be shipped, may be obtained, if desired, upon application to the Commandant at the navy yard, New York.

April 19—td

CHAIN CABLE IRON.

NAVY COMMISSIONERS' OFFICE, }

March 31, 1838. }

PROPOSALS, sealed and endorsed "Proposals for Chain Cable Iron," will be received at this office until 3 o'clock P. M., of the 21st of April next, for manufacturing, furnishing, and delivering at the Navy Yard, Washington, D. C., the quantities, description and quality of Chain Cable Iron herein specified and prescribed, viz:

For first class sloops of war.

30,720 links, 1 11-16 inches in diameter, 20 inches in length.

400 end links, 1 13-16 inches in diameter, 22 inches in length.

